

IN THE SPECIFICATION:

An abstract is provided commencing on a separate sheet as follows:

Abstract

A description is given of a high-voltage connector having a plug with a rubber cone (13) for insertion into a coupling socket (20). Such a connector is also referred to as a rubber cone plug system and serves in particular to connect X-ray radiators with high-voltage generators. The connector is noteworthy in particular in that the length of the rubber cone (13) is dimensioned such that, in the inserted state, there remains an expansion space (25) between an end face of the rubber cone (13) and a bottom of the coupling socket (20), into which expansion space (25) the rubber cone (13) can thermally expand. A particular advantage of this design lies in the fact that, by virtue of the thermal changes on account of highly fluctuating operating temperatures of the connected devices, the high-voltage strength is not impaired even after a large number of such temperature cycles.